

# TECHNIQUE SEPARATION PHYTO-HORMONES OF PROGESTERONE ON CRUDE EXTRACT BENALU DUKU LEAF BY ANALYTICAL COLUMN OF HIGH PERFORMANCE LIQUID CHROMATOGRAPHY.

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## ABSTRACT

The information about Benalu duku (*Dendrophthoe pentandra* L., Miq) containing phyto androgen hormone was known at last of 2013 referred to research report from Indonesia. Beneficially part of the trees containing phyto-hormones was predicted in the leaf especially active compound dissolved in methanol. The new technique for separated phyto-hormones from matrix from crude extract benalu duku leaf was researching. The study aims was to prove the suitable technique separation of the pure active compounds from irrelevant compounds in matrix crude material. 5 g of crude extract methanol benalu duku leaf as a sample were analysis to separate analyte between irrelevant matrix compounds. The active compound will be separate was progesterone like-effect as follows; progesterone, medroxy progesterone acetat, megestrol acetat, dydrogesterone. The samples were added with 5 ml of methanol and shaking hard until dissolved to methanol. A 40 µL was injected to HPLC isocratic system by eluent mobile phase methanol: water (70%:30%) at wavelength 254 nm. Result research showed that progesterone was obtained at a retention time 4.22 min to 6.488 min. By LC-ESI MS showed that accumulation of the chromatogram at retention time at above was progesterone (p<0.05). Conclusion the separated technique by analytical column was suitable for separated for obtained pure analyte.

**Keywords:** LC ESI-MS, analytical column, percolation, chromatogram samples, preparative technique

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## INTRODUCTION

The *Dendrohthoe pentandra* L. Miq., (Benalu duku) was known as herbal medicine since early of 1990 referred to Nuraini *et al.*, (2000). First scientific report showed that benalu duku had been beneficially to eliminated the developed of cell cancer (Ratna et al., 2011). The new